



# COMMONWEALTH of VIRGINIA

## DEPARTMENT OF ENVIRONMENTAL QUALITY

### NORTHERN REGIONAL OFFICE

13901 Crown Court, Woodbridge, Virginia 22193

(703) 583-3800

[www.deq.virginia.gov](http://www.deq.virginia.gov)

Matthew J. Strickler  
Secretary of Natural Resources

David K. Paylor  
Director

Thomas A. Faha  
Regional Director

September 19, 2018

Dr. Evelyn Mahieu  
Director, Environmental Services and  
Water Reclamation  
Prince William County Service Authority  
4 County Complex  
P.O. Box 2266  
Woodbridge, Virginia 22195-2266

Location: Prince William County  
Registration No. 71751  
County-Plant ID No. 51-153-00057

Dear Dr. Mahieu:

Attached is a Significant Modification to the Title V Federal Operating Permit (FOP) to operate your facility pursuant to 9 VAC 5 Chapter 80 of the Virginia Regulations for the Control and Abatement of Air Pollution. This permit supersedes your permit dated September 30, 2015.

This permit contains legally enforceable conditions. Failure to comply may result in a Notice of Violation and civil penalty. Please read all conditions carefully.

This approval to operate does not relieve Prince William County Service Authority of the responsibility to comply with all other local, state, and federal permit regulations.

Issuance of this permit is a case decision. The Regulations, at 9 VAC 5-170-200, provide that you may request a formal hearing from this case decision by filing a petition with the Board within 30 days after this permit is mailed or delivered to you. Please consult that and other relevant provisions for additional requirements for such requests.

Additionally, as provided by Rule 2A:2 of the Supreme Court of Virginia, you have 30 days from the date you actually received this permit or the date on which it was mailed to you,

Dr. Evelyn Mahieu  
September 19, 2018  
Page 2

whichever occurred first, within which to initiate an appeal to court by filing a Notice of Appeal with:

David K. Paylor, Director  
Department of Environmental Quality  
P. O. Box 1105  
Richmond, VA 23218-1105

In the event that you receive this permit by mail, three days are added to the period in which to file an appeal. Please refer to Part Two A of the Rules of the Supreme Court of Virginia for additional information including filing dates and the required content of the Notice of Appeal.

If you have any questions concerning this permit, please contact K. Dean Gossett at (703) 583-3926 or by e-mail at [kevin.gossett@deq.virginia.gov](mailto:kevin.gossett@deq.virginia.gov).

Sincerely,

A handwritten signature in black ink, appearing to read "James B. LaFratta". The signature is stylized with a large, looped "L" and a distinct "A".

James B. LaFratta  
Regional Air Permit Manager

TAF/JBL/KDG/18-TV Permit Cover Letter

Attachment: Permit

cc: Director, OAPP (electronic file submission)  
Manager, Data Analysis (electronic file submission)  
Chief, Air Enforcement Branch (3AP13), U.S. EPA, Region III (electronic file submission)  
Manager, Air Compliance (electronic file submission)



# *COMMONWEALTH of VIRGINIA*

## *DEPARTMENT OF ENVIRONMENTAL QUALITY*

### NORTHERN REGIONAL OFFICE

13901 Crown Court, Woodbridge, Virginia 22193-1453

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David K. Paylor  
Director

Thomas A. Faha  
Regional Director

Matthew J. Strickler  
Secretary of Natural Resources

### **Federal Operating Permit Article 1**

This permit is based upon the requirements of Title V of the Federal Clean Air Act and Chapter 80, Article 1 of the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution. Until such time as this permit is reopened and revised, modified, revoked, terminated or expires, the permittee is authorized to operate in accordance with the terms and conditions contained herein. This permit is issued under the authority of Title 10.1, Chapter 13, §10.1-1322 of the Air Pollution Control Law of Virginia. This permit is issued consistent with the Administrative Process Act and 9 VAC 5-80-50 through 9 VAC 5-80-300 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution of the Commonwealth of Virginia.

Authorization to operate a Stationary Source of Air Pollution as described in this permit is hereby granted to:

Permittee Name:	Prince William County Service Authority
Facility Name:	H.L. Mooney Advanced Water Reclamation Facility
Facility Location:	1851 Rippon Boulevard Woodbridge, Virginia 22191
Registration Number:	71751
Permit Number:	NRO-71751

This permit includes the following programs:

**Federally Enforceable Requirements – Clean Air Act (Pages 6 through 41)**  
**State Enforceable Requirements – SAPCB Regulations (Page 42)**

September 30, 2015  
Effective Date

September 19, 2018  
Modification Date

September 29, 2020  
Expiration Date

  
Thomas A. Faha, Regional Director

9-19-18  
Modification Signature Date

## Table of Contents

Facility Information.....	4
Emission Units .....	6
Sludge Incinerator Requirements – (Unit ID Nos. MHI and FBI) .....	7
Limitations.....	7
Monitoring.....	12
Recordkeeping and Reporting .....	16
Testing.....	17
Emission Standards For Sewage Sludge Incinerators (Rule 4-55) - (Unit ID Nos. MHI and FBI).....	18
Limitations.....	18
Operator Training and Qualifications.....	21
Compliance, Performance Testing and Setting Operating Limits.....	22
Initial and Annual Air Pollution Control Device (APCD) Inspections.....	23
Monitoring.....	24
Reports and Notifications .....	25
Recordkeeping .....	28
Facility Wide Conditions.....	29
Testing .....	29
Permit Shield & Inapplicable Requirements .....	30
General Conditions.....	30
State Only Enforceable Requirements.....	42

## **Facility Information**

### **Permittee**

Prince William County Service Authority  
4 County Complex Court  
P.O. Box 2266  
Woodbridge, Virginia 22195-2266

### **Responsible Official**

Dr. Evelyn Mahieu  
Director, Environmental Services  
And Water Reclamation

### **Facility**

H.L. Mooney Advanced Water Reclamation Facility  
1851 Rippon Boulevard  
Woodbridge, Virginia 22191

### **Contact Person**

Dr. Evelyn Mahieu  
Director, Environmental Services  
And Water Reclamation  
(703) 393-2062

**Plant Identification Number:** 51-153-00057

### **Facility Description:**

NAICS Code 221320 - Sewage Treatment Facilities

H.L. Mooney is a publically owned 24 million-gallon per day (MGD) (average volume) advanced water reclamation facility (AWRF). It incorporates preliminary, primary, secondary and tertiary treatment processes to remove pollutants from wastewater generated by residences and businesses in the eastern half of Prince William County. The plant utilizes a biological nutrient removal (BNR)-activated sludge process in conjunction with advanced (tertiary) treatment, which includes chemical addition and denitrification filters. The wastewater treatment process removes ninety-nine percent of the pollutants in the wastewater influent received by the facility. The residuals (settled and undigested solids and waste activated sludge) are dewatered using high-speed centrifuges and then incinerated in a fluidized bed incinerator (FBI). In addition the facility has a seven hearth multi-hearth sludge incinerator (MHI), which is not currently in use. The inert ash from the incineration process is disposed of in the Prince William County landfill. Particulate matter and sulfur dioxide emissions from the FBI are controlled by a

## Emission Units

Equipment to be operated consists of:

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity *	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
<b>Sewage Sludge Incinerators</b>							
MHI	MHIS	Envirotech Multi-Hearth Sludge Incinerator (7 hearths)	48 dry tons/day	SWEMCO dust collector, Model# 56-HE	MCYC	PM	October 2, 2014
				VOP, Inc. venturi scrubber	MVENT	PM, SO <sub>2</sub> & Acid Gas	
				VOP, Inc. impingement scrubber	MSCR	SO <sub>2</sub> & Acid Gas	
FBI	FBIS	Hankin Fluidized Bed Incinerator	45 dry tons/day**	SWEMCO venturi scrubber	FVENT	PM	October 2, 2014
				SWEMCO tray cooler	FSCR	SO <sub>2</sub> & Acid Gas	October 2, 2014
				Lundberg E-Tube, wet electrostatic precipitator	FWESP	Metals	September 19, 2018
				Koch-Glitsch Minivalve Tray MVB-103FL	FCTRAY	SO <sub>2</sub> & Acid Gas	September 19, 2018
				Envirocare, Sorbent Polymer Composite Module	FSPC	Hg	September 19, 2018

\*The Size/Rated capacity is provided for informational purposes only, and is not an applicable requirement

\*\* Based on HHV of sludge at approximately 6,300 Btu/dry lb.

venturi scrubber and a tray tower scrubber which vent through the same stack. The facility, to comply with 9 VAC 5 Chapter 40, Part II, Emission Standards for Sewage Sludge Incineration Units (Rule 4-55), has retrofitted the FBI with a wet electrostatic precipitator (WESP) to control metal emissions, a caustic tray to control SO<sub>2</sub>/acid gas emissions and a sorbent polymer composite (SPC) mercury removal module to control mercury emissions, all which vent through one stack. Particulate matter and sulfur dioxide emissions from the MHI are controlled by a cyclone, venturi scrubber and impingement scrubber.

The facility is located in Prince William County, which is classified as a marginal non-attainment area for the 2008 ozone standard.

The facility is not a Title V major source of any criteria pollutant or hazardous air pollutants (HAPs), but is a Title V source by rule, per 9 VAC 5 Chapter 40, Part II, Emission Standards for Sewage Sludge Incineration Units (Rule 4-55), promulgated August 15, 2012. This regulation incorporates the emission guidelines and compliance times for existing sewage sludge incineration units in accordance with 40 CFR 60, Subpart M. Both the facility's FBI and MHI units are sewage sludge incinerators that commenced construction on or before October 14, 2010. Per Title V Permitting Regulation 9 VAC 5-80-110 A.2., for any source other than a major source subject to Title V permitting, the board shall include in the permit all applicable requirements that apply to emissions units that cause the source to be subject to this article. This modified Title V Permit only addresses requirements applicable to the FBI and MHI. The facility is also subject to 40 CFR 60 Subpart O, Standards of Performance for Sewage Treatment Plants and 40 CFR 61 Subpart E, National Emission Standard for Mercury.

The facility was initially permitted under a Minor NSR (mNSR) permit, issued on October 29, 1975 for the MHI. On July 9, 1990 a mNSR permit was issued to construct the FBI. On May 22, 2006 a mNSR permit was issued which combined the MHI and FBI permits. On March 1, 2012 a mNSR permit was issued to construct two additional emergency generators. The facility is currently operating under a mNSR permit issued on October 2, 2014, which limits the pollutants of concern, NO<sub>x</sub> to 69.1 tpy (from the entire water reclamation facility) and CO to 99.4 tpy. In addition the mNSR permit issued on October 2, 2014 contains lbs/dry ton sludge burned limits on PM-10, SO<sub>2</sub>, NO<sub>x</sub>, CO, VOCs and lead and lbs/day limits on beryllium, mercury and vanadium. The facility received a Title V permit September 30, 2015 to meet the SSI MACT standards which were incorporated under 9 VAC 5 Chapter 40, Part II, Emission Standards for Sewage Sludge Incineration Units (Rule 4-55).

To support the operation of the FBI and MHI and their air pollution control devices, the facility is equipped with various auxiliary systems, including three diesel engine driven emergency generators and fuel storage tanks.



## **Sewage Sludge Incinerator Requirements – (Ref. Nos. FBI and MHI)**

### **Limitations**

1. **Emission Controls** – Particulate matter emissions from the fluidized bed incinerator (FBI), including lead and other trace metals, shall be controlled by a venturi scrubber (PCD ID# FVENT) and a wet electrostatic precipitator (PCD ID# FWESP). The venturi scrubber shall have a pressure drop of no less than 30 inches of water column. The venturi scrubber (PCD ID# FVENT), the pressure drop recording device and the wet electrostatic precipitator (PCD ID# FWESP) shall be provided with adequate access for inspection and shall be continuously in operation when the FBI is operating.  
(9 VAC 5-80-110, 9 VAC 5-40-8200 and Condition 2 of the March 1, 2012 mNSR Permit (as amended October 2, 2014))
2. **Emission Controls** – Particulate matter emissions from the multiple hearth incinerator (MHI) shall be controlled with a cyclone (PCD ID# MCYC), venturi scrubber (PCD ID# MVENT), and impingement scrubber (PCD ID# MSCR). The cyclone (PCD ID# MCYC), venturi scrubber (PCD ID# MVENT), and impingement scrubber (PCD ID# MSCR) shall be provided with adequate access for inspection and shall be in operation when the MHI is operating.  
(9 VAC 5-80-110 and Condition 3 of the March 1, 2012 mNSR Permit (as amended October 2, 2014))
3. **Emission Controls** – Fugitive particulate matter emissions from the FBI, resulting from the ash handling system, shall be controlled by handling ash as wet slurry. The ash handling facilities shall be provided with adequate access for inspection.  
(9 VAC 5-80-110 and Condition 4 of the March 1, 2012 mNSR Permit (as amended October 2, 2014))
4. **Emission Controls** – Sulfur dioxide and acid gas emissions from the FBI shall be controlled by a tray-tower scrubber (PCD ID# FSCR) and a caustic tray (PCD ID# FCTRAY). The tray-tower scrubber (PCD ID# FSCR) shall be at least three trays and using effluent from the treatment plant as a source of alkalinity, or other solution approved by the Virginia Department of Environmental Quality (DEQ), as the scrubbing solution.  
(9 VAC 5-80-110, 9 VAC 5-40-8200, 9 VAC 5-50-260 and Condition 5 of the March 1, 2012 mNSR Permit (as amended October 2, 2014))
5. **Emission Controls** – Mercury gas emissions from the FBI shall be controlled by a sorbent polymer composite mercury removal module (PCD ID# FSPC). The sorbent

polymer composite mercury removal module (PCD ID# FSPC) shall be provided with adequate access for inspection and shall be in operation when the FBI is operating. (9 VAC 5-80-110 and 9 VAC 5-40-8200)

6. **Emission Controls** – The nitrogen oxides emissions ( $\text{NO}_x$ ) from the FBI shall be controlled by maintaining a combustion temperature not in excess of 1650°F (unless maximum temperature re-established per Condition 19.d) and the incinerator exhaust oxygen shall be maintained within the range of three to seven percent oxygen on a wet basis.  
(9 VAC 5-80-110, 9 VAC 5-50-260 and Condition 6 of the March 1, 2012 mNSR Permit (as amended October 2, 2014))
7. **Emission Controls** – The VOC and CO emissions from the FBI shall be controlled by maintaining a combustion temperature of not less than 1500°F (unless minimum temperature re-established per Condition 19.d). Temperature in the incinerator bed and the outlet duct shall be continuously recorded. Temperature may be less during startup and shutdown, but sludge shall only be fed when combustion temperature is greater than or equal to 1500°F.  
(9 VAC 5-80-110 and Condition 7 of the March 1, 2012 mNSR Permit (as amended October 2, 2014))
8. **Processing** – The FBI shall process no more than the following limits:
  - a. 1.875 dry tons per hour of sludge or 45 dry tons per day.
  - b. 16,425 dry tons per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.  
(9 VAC 5-80-110 and Condition 14 of the March 1, 2012 mNSR Permit (as amended October 2, 2014))
9. **Processing** – The MHI shall process no more than the following limits:
  - a. 2.0 dry tons per hour of sludge or 48 dry tons per day.
  - b. 6,400 dry tons per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.  
(9 VAC 5-80-110 and Condition 15 of the March 1, 2012 mNSR Permit (as amended October 2, 2014))

10. **Fuel** – The approved fuels for the FBI are distillate oil and natural gas. A change in the fuel may require a permit to modify and operate.  
(9 VAC 5-80-110 and Condition 16 of the March 1, 2012 mNSR Permit (as amended October 2, 2014))
11. **Fuel** – The approved fuels for the MHI are distillate oil and natural gas. A change in the fuel may require a permit to modify and operate.  
(9 VAC 5-80-110 and Condition 17 of the March 1, 2012 mNSR Permit (as amended October 2, 2014))
12. **Fuel** – The distillate oil shall meet the specifications below:  
DISTILLATE OIL which meets the ASTM D396 specification for numbers 1 or 2 fuel oil:  
  
Maximum sulfur content per shipment: 0.3%  
  
(9 VAC 5-80-110 and Condition 18 of the March 1, 2012 mNSR Permit (as amended October 2, 2014))
13. **Fuel Certification** – The permittee shall obtain a certification from the fuel supplier with each shipment of distillate oil. Each fuel supplier certification shall include the following:
  - a. The name of the fuel supplier;
  - b. The date on which the distillate oil was received;
  - c. The quantity of distillate oil delivered in the shipment;
  - d. A statement that the distillate oil complies with the American Society for Testing and Materials specifications (ASTM D396) for numbers 2 fuel oil;
  - e. The sulfur content of the distillate oil; and
  - f. The method used to determine the sulfur content of the distillate oil  
(9 VAC 5-80-110 and Condition 19 of the March 1, 2012 mNSR Permit (as amended October 2, 2014))
14. **Requirements by Reference** – Except where this permit is more restrictive than the applicable requirement, the FBI and MHI shall be operated in compliance with the requirements of 40 CFR 60, Subpart O and 40 CFR 61, Subpart E.  
(9 VAC 5-80-110 and Condition 20 of the March 1, 2012 mNSR Permit (as amended October 2, 2014))

15. **Process Emission Limits** – Emissions from the operation of the MHI shall not exceed the limits specified below:

PM	1.3 lbs/dry ton sludge burned
PM-10	1.3 lbs/dry ton sludge burned
Sulfur Dioxide	4.6 lbs/dry ton sludge burned
Nitrogen Oxides (as NO <sub>2</sub> )	5.0 lbs/dry ton sludge burned
Carbon Monoxide	31.0 lbs/dry ton sludge burned
Volatile Organic Compounds	3.4 lbs/dry ton sludge burned
Lead	0.1 lbs/dry ton sludge burned
Beryllium	0.022 lbs/day
Mercury	7.1 lbs/day

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Condition number 9.

(9 VAC 5-80-110, 40 CFR §61.52, 40 CFR §60.152(a)(1) and Condition 26 of the March 1, 2012 mNSR Permit (as amended October 2, 2014))

16. **Process Emission Limits** – Emissions from the operation of the FBI shall not exceed the limits specified below:

PM	1.3 lbs/dry ton sludge burned
PM-10	0.6 lbs/dry ton sludge burned
Sulfur Dioxide	2.8 lbs/dry ton sludge burned
Nitrogen Oxides (NO <sub>x</sub> )	150 ppm (@ 7% O <sub>2</sub> ), dry basis
NO <sub>x</sub> (as NO <sub>2</sub> )	3.51 lbs/dry ton sludge burned
Carbon Monoxide	1.3 lbs/dry ton sludge burned
Volatile Organic Compounds <sup>1</sup>	1.2 lbs/dry ton sludge burned
Lead	0.3 lbs/dry ton sludge burned
Beryllium	0.022 lbs/day
Mercury	7.1 lbs/day
Vanadium	1.42 lbs/day

<sup>1</sup> Measured as hydrocarbons

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Condition number 8.

(9 VAC 5-80-110, 40 CFR §60.152(a)(1) and Condition 27 of the March 1, 2012 mNSR Permit (as amended October 2, 2014))

**17. Annual Emission Limits for Sludge Incinerators** – Total emissions from the sewage sludge incinerators combined shall not exceed the limits specified below:

Nitrogen Oxides                      44.8 tons/year  
(as NO<sub>2</sub>)

Carbon Monoxide (CO)              99.4 tons/year

Compliance shall be demonstrated monthly using the following equations:

- a. NO<sub>x</sub> Emissions (tons/month) =  
     $\{[(\text{Dry tons of sewer sludge incinerated in the FBI for the month, (dry tons/month)}) \times (3.51 \text{ lb NO}_x / \text{dry tons of sewer sludge incinerated})] + [(\text{Dry tons of sewer sludge incinerated in the MHI for the month, (dry tons/month)}) \times (5.0 \text{ lb NO}_x / \text{dry tons of sewer sludge incinerated})]\} / 2000$
- b. CO Emissions (tons/month) =  
     $\{[(\text{Dry tons of sewer sludge incinerated in the FBI for the month, (dry tons/month)}) \times (1.3 \text{ lb CO / dry tons of sewer sludge incinerated})] + [(\text{Dry tons of sewer sludge incinerated in the MHI for the month, (dry tons/month)}) \times (31.0 \text{ lb CO / dry tons of sewer sludge incinerated})]\} / 2000$

(9 VAC 5-80-110, 9 VAC 5-80-1180, 9 VAC 5-50-260 and Condition 28 of the March 1, 2012 mNSR Permit (as amended October 2, 2014))

**18. Visible Emission Limit for Sludge Incinerators** –

- a. Visible emissions from the FBI shall not exceed 10 percent opacity (six-minute average) except during one six-minute period in any one hour period in which visible emissions shall not exceed 15 percent opacity as determined by the EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown, and malfunction.

- b. Visible emissions from the MHI stack shall not exceed 20 percent opacity (6-minute average), except during startup, shutdown, or malfunction.  
(40 CFR §60.152 (a)(2))

(9 VAC 5-80-110, 9 VAC 5-50-80, 40 CFR §60.152 (a)(2)) and Condition 29 of the March 1, 2012 mNSR Permit (as amended October 2, 2014))

## **Sewage Sludge Incinerator Requirements – (Ref. Nos. FBI and MHI)**

### **Monitoring**

**19. Monitoring** – The incinerators shall be equipped with devices to continuously measure and record the following:

- a. The permittee shall install, maintain, calibrate and operate permanent monitoring devices to continuously measure the input feed rate of sludge to the MHI and FBI in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. The flow measuring device shall be certified by the manufacturer to have an accuracy of  $\pm 5$  percent over its operating range. The permittee must calculate a daily average of sludge daily feed rate for all hours of operation of the incinerators during each 24-hour period. The permittee must keep a record of the daily average feed rate. The monitoring devices shall be provided with adequate access for inspection and shall be in operation when the incinerator is operating.
- b. If the multi-hearth sewage sludge incinerator (MHI) has been out of service for more than twelve months and it is to be operated again, the Regional Air Compliance Manager of the DEQ's Northern Regional Office (NRO) shall be notified no less than ten days in advance and the MHI SWEMCO dual cyclone shall have an inspection of all internal and external components of the cyclone to ensure structural integrity prior to start-up of the MHI. If the period during which the MHI may operate is to be allowed to exceed twelve months beyond the inspection of the MHI SWEMCO dual cyclone, the inspection described in this condition shall be conducted annually until such time as the MHI is either out of service for more than twelve months, or is permanently shut down. The cyclone shall be provided with adequate access for inspection and shall be in operation when the MHI is operating.
- c. For the FBI and the MHI (if re-started), install, calibrate, maintain and operate a monitoring device that continuously measures and records the oxygen content of the incinerator exhaust gas. The oxygen monitor shall be located upstream of any

rabble shaft cooling air inlet into the incinerator exhaust gas stream, fan, ambient air recirculation damper or any other source of dilution air. The oxygen monitoring device shall be certified by the manufacturer to have a relative accuracy of  $\pm 5$  percent over its operating range and shall be calibrated according to manufacturer's instructions, at least once each 24-hour period. The oxygen monitoring device shall be operated continuously and data recorded at minimum of once each fifteen minutes for each hour the incinerator is operated during all periods of operation of the incinerator. For compliance purposes, the data averaging period is a 1-hour block.

- d. The permittee must install, calibrate, maintain and operate temperature measuring devices at every hearth of the MHI (if the MHI is re-started). A minimum of one temperature measuring device shall be installed in each hearth in the cooling and drying zones, and a minimum of two temperature measuring devices shall be installed in the combustion zone. The temperature monitoring devices shall be operated continuously and data recorded continuously during all periods of operation of the incinerator. A minimum combustion operating temperature must be re-established as per Condition 34. For compliance purposes, the data averaging period is a 12-hour block.

The permittee must install, calibrate, maintain and operate temperature measuring devices in the bed and in the outlet duct of the FBI. The temperature monitoring devices shall be operated continuously and data recorded at minimum of once each fifteen minutes for each hour the incinerator is operated during all periods of operation of the incinerator. The minimum combustion temperature will be 1500°F and the maximum temperature will be 1650°F unless the minimum and maximum combustion operating temperature are re-established at different temperatures as per Condition 34. For compliance purposes, the data averaging period is a 12-hour block.

- e. The differential pressure drop across the scrubber for the MHI (if it is re-started) shall be monitored continuously and data recorded continuously during all periods of operation of the incinerator. A minimum pressure drop must be re-established as per Condition 34. For compliance purposes, the data averaging period is a 12-hour block.

The differential pressure drop across the scrubber for the FBI shall be monitored continuously and data recorded at minimum of once each fifteen minutes for each hour the incinerator is operated. A minimum pressure drop will be 30 inches of water column unless it is re-established at a different minimum pressure drop as per Condition 34. For compliance purposes, the data averaging period is a 12-hour block.

- f. The permittee shall construct the MHI and FBI in such a manner that access is provided to the sludge charged to the incinerators so that a well-mixed representative grab sample of the sludge can be obtained.
1. For the MHI (if re-started), the permittee must collect and analyze a grab sample of the sludge fed to the incinerator once per day.
    - The dry sludge content and the volatile solids content of the sample shall be determined in accordance with the method specified under 40 CFR 60.154(b)(5), except the determination of volatile solids, step (3)(b) of the method, may not be deleted.
  2. The permittee must take at least one grab sample per day of the sewage sludge fed to the sewage sludge incinerators to test for daily moisture content. If more than one grab sample is taken in a day, calculate the daily average moisture content for the grab samples. Records must be kept of the daily average moisture content of the sludge.
- g. The MHI, if re-started must install, calibrate, maintain and operate a device for measuring the fuel flow to the incinerator. The flow measuring device shall be certified by the manufacturer to have an accuracy of  $\pm 5$  percent over its operating range. The fuel flow measuring device shall be operated continuously and data recorded for all periods of operation of the incinerator.
- The permittee must install, calibrate, maintain and operate a device for measuring the fuel flow to the FBI. The flow measuring device shall be certified by the manufacturer to have an accuracy of  $\pm 5$  percent over its operating range.
- h. The permittee must install on the FBI scrubber, caustic tray and the MHI (if re-started) scrubber, a device to monitor the liquid flow rates of the scrubbers and caustic tray. The liquid flow rates of the scrubbers and caustic tray shall be monitored continuously and data recorded at minimum of once each fifteen minutes for each hour the incinerator is operated. A minimum flow rate must be established as per Condition 34. For compliance purposes, the data averaging period is a 12-hour block.
- i. The permittee must install a device on the FBI scrubber, caustic tray and MHI scrubber (if the MHI is restarted) to continuously measure the scrubber and caustic tray liquid pH. The data must be recorded at minimum of once each fifteen minutes for each hour the incinerator is operated. A minimum scrubber liquid pH must be established as per Condition 34. For compliance purposes, the data averaging period is a 3-hour block.



- j. The permittee must install a device on the FBI WESP to continuously measure the secondary voltage and secondary amperage of the WESP collection plates. The data must be recorded at minimum of once each hour for each hour the incinerator is operated. A minimum power input to the WESP must be established as per Condition 34. For compliance purposes, the data averaging period is a 12-hour block.
- k. The permittee must install a device on the FBI WESP to measure the effluent water flow rate at the outlet of the WESP on an hourly basis. The data must be recorded at minimum of once each hour for each hour the incinerator is operated. A minimum effluent water flow rate at the outlet of the WESP must be established as per Condition 34. For compliance purposes, the data averaging period is a 12-hour block.
- l. The permittee must conduct the periodic operational parameter monitoring on the FSPC as detailed in the U.S. EPA approved site specific monitoring plan for the FSPC.

Each monitoring device shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the incinerators are in operation.

(9 VAC 5-80-110, 40 CFR§60.153, 40 CFR§60.5170, 40 CFR§60.5250 Table 4, and Condition 10 of the March 1, 2012 mNSR Permit (as amended October 2, 2014))

20. **Monitoring Device Observation** – To ensure good performance, the incinerators and associated control device monitors used to continuously measure oxygen, temperature, differential pressure, scrubber and caustic tray liquid flow rates, liquid pH, secondary voltage and amperage, WESP effluent water flow rates and feed rate shall be observed by the permittee with a frequency of not less than once per day, or as recommended by the process/control equipment manufacturer. The permittee shall keep a log of the observations, from the process/control monitoring device.  
(9 VAC 5-80-110, 40 CFR §60.153 and Condition 12 of the March 1, 2012 mNSR Permit (as amended October 2, 2014))

21. **Periodic Monitoring** – At least one time per calendar week that the FBI or MHI is operating; the permittee shall make an observation for the presence of visible emissions from the incinerator exhaust using a EPA Method 22-like procedure. The presence of visible emissions shall require the permittee to:

- a. Take timely corrective action such that the emissions point, with visible emissions, resumes operation with no visible emissions, or,
- b. Conduct a visible emission evaluation (VEE) on the emissions point, with visible emissions, in accordance with EPA Method 9 (reference 40 CFR Part 60, Appendix A) for a minimum of six (6) minutes, to assure visible emissions are 10 percent opacity or less (if the FBI is operating) or 20 percent or less (if the MHI is operating), as required by Condition 18. If any of the observations exceed the opacity limitation, the observation period shall continue until a total of sixty (60) minutes of observation have been completed. Timely corrective action shall be taken, if necessary, such that the emissions point resumes operation within the percent opacity limit as required by Condition 18.

The permittee shall maintain an emissions point observation log to demonstrate compliance. The log shall include the date and time of the observations, which incinerator was operating, whether or not there were visible emissions, the results of all VEEs, any necessary corrective action, and the name of the observer. If an emissions point has not been operated for any period during the day, it shall be noted in the log book.

(9 VAC 5-80-110 E and 9 VAC 5-80-110 K)

## **Sewage Sludge Incinerator Requirements – (Ref. Nos. FBI and MHI)**

### **Recordkeeping and Reporting**

22. **On Site Records** – The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit for the sludge incinerators (Ref. Nos. MHI and FBI). The content and format of such records shall be arranged with the Regional Air Compliance Manager of the DEQ's NRO.

These records shall include, but are not limited to:

- a. Daily throughput (calculated hourly) of sewage sludge (dry tons) processed by the FBI and MHI.
- b. Annual throughput of sewage sludge (dry tons), calculated monthly as described in Conditions 8 and 9.
- c. All fuel supplier certifications.
- d. Annual emissions per Condition 17, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period

shall be demonstrated by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.

- e. Log book of VEE observations as required in Condition 21.
- f. Operation and control device monitoring records for the air pollution control devices as required in Conditions 7 and 19.
- g. Scheduled and unscheduled maintenance.
- h. Operator training.
- i. Results of all stack tests, sludge tests, visible emission evaluations, and performance evaluations required by DEQ.
- j. Other records as may be required by the Air Compliance Manager, Northern Regional Office.

These records shall be available for inspection by the DEQ and shall be current for the most recent five years, unless otherwise noted.

(9 VAC 5-80-110 and Condition 41 of the March 1, 2012 mNSR Permit (as amended October 2, 2014))

23. **Semi-annual reports** – Semi-annual reports shall be submitted to the Air Compliance Manager, NRO. These reports should contain, but not be limited to, those items listed in Condition 22.  
(9 VAC 5-80-110 N, 9 VAC 5-50-50 and Condition 43 of the March 1, 2012 mNSR Permit (as amended October 2, 2014))

## **Sewage Sludge Incinerator Requirements – (Ref. Nos. FBI and MHI)**

### **Testing**

24. **Stack Tests** – The permittee shall conduct a one time performance testing of the sludge incinerators (Ref. Nos. MHI (if restarted) and FBI) to demonstrate compliance with the PM/PM-10, Sulfur Dioxide, Nitrogen Oxides (as NO<sub>2</sub>), Carbon Monoxide, Volatile Organic Compounds and lead emission limits contained in Conditions 15 (if fired back up) and 16. This performance testing shall be in conjunction with the compliance demonstration required in Condition 32. The details of the tests shall be arranged with the Regional Air Compliance Manager of the DEQ's NRO.  
(9 VAC 5-40-30 and 9 VAC 5-80-110)

25. **Testing/Monitoring Ports for Sludge Incinerators** – The sewage sludge incinerators shall be modified so as to allow for emissions testing upon reasonable notice at any time, using appropriate methods. This includes constructing the facility/equipment such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and providing a stack or duct that is free from cyclonic flow. Sampling ports shall be provided when requested at the appropriate locations and safe sampling platforms and access shall be provided. (9 VAC 5-80-110 and Condition 35 of the March 1, 2012 mNSR Permit (as amended October 2, 2014))
26. **Stack Tests** – Upon request by the DEQ, the permittee shall conduct additional performance testing of the sludge incinerators (Ref. Nos. MHI and FBI) to demonstrate compliance with the emission limits contained in this permit. The details of the tests shall be arranged with the Regional Air Compliance Manager of the DEQ's NRO. (9 VAC 5-80-110 and Condition 37 of the March 1, 2012 mNSR Permit (as amended October 2, 2014))
27. **Visible Emissions Evaluation** – Upon request by the DEQ, the permittee shall conduct additional visible emission evaluations of the sludge incinerators (Ref. Nos. MHI and FBI) to demonstrate compliance with the visible emission limits contained in this permit. The details of the VEE shall be arranged with the Regional Air Compliance Manager of the DEQ's NRO. (9 VAC 5-80-110 and Condition 38 of the March 1, 2012 mNSR Permit (as amended October 2, 2014))

## **9 VAC 5 Chapter 40, Part II, Emission Standards for Sewage Sludge Incineration Units (Rule 4-55) - (Unit ID Nos. MHI and FBI)**

### **Limitations**

28. **Emission Limits** – Emissions from the FBI flue gas shall not exceed:

Particulate Matter	18 mg/dscm (@ 7% O <sub>2</sub> )
Carbon Monoxide (CO)	64 ppmvd (@ 7% O <sub>2</sub> )
Nitrogen Oxides (NO <sub>x</sub> )	150 ppmvd (@ 7% O <sub>2</sub> )
Sulfur Dioxide	15 ppmvd (@ 7% O <sub>2</sub> )
Cadmium (Cd)	0.0016 mg/dscm (@ 7% O <sub>2</sub> )
Hydrogen Chloride (HCl)	0.51 ppmvd (@ 7% O <sub>2</sub> )
Mercury (Hg)	0.037 mg/dscm (@ 7% O <sub>2</sub> )

Lead (Pb) 0.0074 mg/dscm (@ 7% O<sub>2</sub>)

Dioxins/Furans 0.1 ng/dscm (@ 7% O<sub>2</sub>)

(Toxic Equivalency Basis)

or

Dioxins/Furans 1.2 ng/dscm (@ 7% O<sub>2</sub>)

(Total Mass Basis)

Pollutant	Averaging Method & Minimum Sampling Volume
PM	3 run average (min. volume of 1.0 dscm per run)
CO	3 run average (collect sample for a minimum duration of 1 hour per run)
NO <sub>x</sub>	3 run average (collect sample for a minimum duration of 1 hour per run)
SO <sub>2</sub>	3 run average (Method 6 a min. volume of 60 liters per run, for Method 6C collect a minimum duration of 1 hour per run)
Cd	3 run average (collect a min. volume of 1 dscm per run)
HCl	3 run average (min. volume of 1.0 dscm per run)
Hg	3 run average (Method 29 collect a min. volume of 1 dscm per run, Method 30B, collect a min. sample as specified in Method 30B at 40 CFR Part 60, Appendix A-8)
Pb	3 run average (collect a min. volume of 1 dscm per run)
Dioxins/Furans (Toxic Equival. Basis)	3 run average (min. volume of 1.0 dscm per run)
Dioxins/Furans (Total Mass Basis)	3 run average (collect a min. volume of 1 dscm per run)

The emission limits and standards listed above apply at all times including during start-up, shutdown and malfunction. For determining compliance with the CO concentration limit using CO CEMS, the correction to 7% oxygen does not apply during periods of startup or shutdown. Use the measured CO concentration without correcting for oxygen concentration in averaging with other CO concentrations (corrected to 7% O<sub>2</sub>) to determine the 24-hour average value. (9 VAC 5-80-110 and 9 VAC 5-40-8220)

**29. Emission Limits** – Emissions from the MHI flue gas shall not exceed:

Particulate Matter 80 mg/dscm (@ 7% O<sub>2</sub>)

Carbon Monoxide (CO) 3800 ppmvd (@ 7% O<sub>2</sub>)

Nitrogen Oxides (NO<sub>x</sub>) 220 ppmvd (@ 7% O<sub>2</sub>)

Sulfur Dioxide 26 ppmvd (@ 7% O<sub>2</sub>)

Cadmium (Cd) 0.095 mg/dscm (@ 7% O<sub>2</sub>)

Hydrogen Chloride (HCl)	1.2 ppmvd (@ 7% O <sub>2</sub> )
Mercury (Hg)	0.28 mg/dscm (@ 7% O <sub>2</sub> )
Lead (Pb)	0.3 mg/dscm (@ 7% O <sub>2</sub> )
Dioxins/Furans (Toxic Equivalency Basis)	0.32 ng/dscm (@ 7% O <sub>2</sub> )
or	
Dioxins/Furans (Total Mass Basis)	5.0 ng/dscm (@ 7% O <sub>2</sub> )

Pollutant	Averaging Method & Minimum Sampling Volume
PM	3 run average (min. volume of 0.75 dscm per run)
CO	3 run average (collect sample for a minimum duration of 1 hour per run)
NO <sub>x</sub>	3 run average (collect sample for a minimum duration of 1 hour per run)
SO <sub>2</sub>	3 run average (Method 6 collect a min. volume of 200 liters per run, for Method 6C collect a minimum duration of 1 hour per run)
Cd	3 run average (collect a min. volume of 1 dscm per run)
HCl	3 run average (Method 26 collect a min. volume of 200 liters per run, for Method 26A collect a min. volume of 1 dscm per run)
Hg	3 run average (Method 29 collect a min. volume of 1 dscm per run, Method 30B, collect a min. sample as specified in Method 30B at 40 CFR Part 60, Appendix A-8)
Pb	3 run average (collect a min. volume of 1 dscm per run)
Dioxins/Furans (Toxic Equival. Basis)	
Dioxins/Furans (Total Mass Basis)	3 run average (collect a min. volume of 1 dscm per run)

The emission limits and standards listed above apply at all times including during start-up, shutdown and malfunction. For determining compliance with the CO concentration limit using CO CEMS, the correction to 7% oxygen does not apply during periods of startup or shutdown. Use the measured CO concentration without correcting for oxygen concentration in averaging with other CO concentrations (corrected to 7% O<sub>2</sub>) to determine the 24-hour average value.  
(9 VAC 5-80-110 and 9 VAC 5-40-8220)

**30. Visible Emission Limit – Ash Conveying System:**

Visible emissions from any ash conveying system (including conveyor transfer points) of the FBI and MHI shall be visible for no more than 5 percent of the hourly observation period, measured at three, 1-hour observation periods. (EPA Reference Method 22 (40 CFR 60, Appendix A)).

(9 VAC 5-80-110 and 9 VAC 5-40-8240)

**9 VAC 5 Chapter 40, Part II, Emission Standards for Sewage Sludge Incineration Units (Rule 4-55) - (Unit ID Nos. MHI and FBI)**

**Operator Training and Qualifications**

**31. Operator Training** – A sewage sludge incinerator (SSI) (Unit. Ref. Nos. FBI and MHI) cannot be operated unless a fully trained and qualified unit operator is accessible, either at the facility or can be at the facility within 1 hour. The trained and qualified SSI unit operator may operate the SSI unit directly or be the direct supervisor of one or more other plant personnel who operate the unit.

- a. Operator training and qualification must be obtained through a state-approved program or by completing the requirements listed in 40 CFR 60.5130(c).
- b. Initial operator training and qualification must be completed by the later of the following three dates:
  1. The final compliance date.
  2. 6 months after the unit start-up or,
  3. 6 months after an employee assumes responsibility of operating or supervising operation of the unit.
- c. Maintaining operator qualification requires an annual refresher course or review including coverage of the following topics:
  1. Update of regulations.
  2. Incineration operation including startup and shutdown procedures, sewage sludge feeding and ash handling.
  3. Inspection and maintenance.
  4. Prevention of malfunctions or conditions leading to malfunction.
  5. Discussion of operating problems encountered by attendees.
  6. Renewal of lapsed operator qualification requires one of two methods:
    - a. For lapse less than 3 years, completion of annual refresher course is required.
    - b. For lapse of 3 years or more, initial qualification training must be repeated.

- d. If all qualified operators are temporarily not accessible, the permittee must meet the criteria specified in 40 CFR 60.5155(a) or 40 CFR 60.5155(b), depending on the length of time that a qualified operator is not accessible.

(9 VAC 5-80-110 and 9 VAC 5-40-8270)

## **9 VAC 5 Chapter 40, Part II, Emission Standards for Sewage Sludge Incineration Units (Rule 4-55) - (Unit ID Nos. MHI and FBI)**

### **Compliance, Performance Testing and Setting Operating Limits**

**32. Initial Compliance Demonstration** – Initial compliance with the emission limits and standards set out in Condition Nos. 28 and 29 must be demonstrated according to the requirements in 9 VAC 5-40-8310, 40 CFR 60.5170, 40 CFR 60.5175, 40 CFR 60.5185, 40 CFR 60.5190, 40 CFR 60.5220 (a) and (b), 40 CFR 60.5225 and Tables 2 and 3 of 40 CFR Part 60 Subpart MMMM by March 21, 2016 at the latest.

- a. An annual performance test must be conducted 11-13 calendar months after the previous test or within 60 days of a process change.
- b. If two consecutive annual performance tests show that emissions for a pollutant are at or below 75% of that emission limit specified in Table 2 or 3 of Subpart MMMM, then testing for that pollutant can be conducted every 3<sup>rd</sup> year, but no more than 37 months after the previous performance test.
- c. Use of a continuous emissions monitoring system (CEMS) or continuous automated sampling system (CASS) to demonstrate compliance requires following of the procedures specified in 40 CFR 60.5220(b)(1) - CFR 60.5220(b)(6). For CEMS that do not yet have a final performance specification (hydrogen, chloride, dioxins/furans, cadmium, or lead), the option to use CEMS or CASS takes effect on the date a final performance specification applicable to the monitored pollutant is published in the Federal Register.

(9 VAC 5-80-110 and 9 VAC 5-40-8310)

- 33. Initial Compliance Test for Fugitive Ash** – The permittee will conduct an initial Method 22 visible emissions inspection of the ash handling operations (for the FBI and MHI) and annually during each compliance test, or use results from a test conducted within 2 previous years if the test meets the criteria in 40 CFR 60.5185(a)(2).



An ash handling plan must be submitted 60 days before the initial compliance test date.

(9 VAC 5-80-110 and 9 VAC 5-40-8310)

**34. Establishing Operating Limits** – The permittee will establish site-specific operating limits as specified in 40 CFR 60.5190 or 40 CFR 60.5175, as applicable, during its initial performance test as required in 40 CFR 60.5185.

- a. The permittee must meet the requirements in 40 CFR 60.5210(d) to confirm the operating limits or re-establish new operating limits using operating data recorded during any performance tests or performance evaluations required in 40 CFR 60.5205.
- b. The permittee must follow the data measurement and recording frequencies and data averaging times specified in Table 4 of 40 CFR Part 60 Subpart Mmmm or as established in 40 CFR 60.5190 or 40 CFR 60.5175, as applicable, and must follow the testing, monitoring, and calibration requirements specified in 40 CFR 60.5220 and 60.5225 or as established in 40 CFR 60.5175.

(9 VAC 5-80-110 and 9 VAC 5-40-8290)

**35. Continuous Compliance** – To demonstrate continuous compliance with the emission limits and standards specified in Table 2 and 3 of 40 CFR Part 60 Subpart Mmmm, the permittee shall use the procedures specified in 40 CFR 60.5205(a) through (f), 40 CFR 60.5210 and 40 CFR 60.5225.

(9 VAC 5-80-110 and 9 VAC 5-40-8300)

## **9 VAC 5 Chapter 40, Part II, Emission Standards for Sewage Sludge Incineration Units (Rule 4-55) - (Unit ID Nos. MHI and FBI)**

### **Initial and Annual Air Pollution Control Device (APCD) Inspection**

**36. Initial APCD Inspection** – The initial APCD inspection for the FBI and MHI must be conducted by the compliance date under the approved state plan, or by March 21, 2016 at the latest.

- a. For new APCD installed after final compliance date, inspection must be conducted within 60 days of installation.
- b. APCD repairs (if necessary) as result of initial inspection must be conducted no later than 10 operating days following the inspection unless written approval from

the DEQ NRO establishing a date whereby all necessary repairs of the affected SSI unit must be completed.

- c. APCD inspection must include:
  - 1. Inspection of APCD for proper operation.
  - 2. General observation of equipment to assure it is well maintained and in good operating condition.

(9 VAC 5-80-110 and 9 VAC 5-40-8300)

**37. Annual APCD Inspection –**

- a. An annual inspection of each air pollution control device used to comply with the emission limits must be conducted no later than 12 months following the previous annual air pollution control device inspection.
- b. Within ten operating days following an APCD inspection, all necessary repairs must be completed unless written approval from the DEQ NRO establishing a date whereby all necessary repairs of the affected SSI unit must be completed.
- c. APCD inspection must include:
  - 1. Inspection of APCD for proper operation.
  - 2. General observation of equipment to assure it is well maintained and in good operating condition.

(9 VAC 5-80-110 and 9 VAC 5-40-8310)

**9 VAC 5 Chapter 40, Part II, Emission Standards for Sewage Sludge Incineration Units (Rule 4-55) - (Unit ID Nos. MHI and FBI)**

**Monitoring**

- 38. Initial Evaluation of Monitoring System –** Site-specific monitoring plans must be developed for each continuous monitoring system and submitted to the Regional Air Compliance Manager of the DEQ's NRO according to the requirements in 40 CFR 60.5200(a), (b) and (c) for approval at least 60 days before the initial performance evaluation of a continuous monitoring system. The permittee must also submit a site-specific monitoring plan for its ash handling system, as specified in 60.5200(d).  
(9 VAC 5-80-110 and 9 VAC 5-40-8310)

- 39. Updated Monitoring Plan –** An updated monitoring plan must be submitted if there are any changes in monitoring procedures, or if there is a process change.

- a. Monitoring plans involving alternate monitoring requirements to demonstrate compliance may be submitted to the Regional Air Compliance Manager of the DEQ's NRO for approval.
- b. Alternate monitoring plans must be submitted for approval no later than notification of the initial performance test.
- c. Approval or denial of the alternative monitoring plan will be given to the SSI unit owner/operator within 90 days after receipt of original request or 60 days after receipt of any supplemental information, whichever is later.

(9 VAC 5-80-110 and 9 VAC 5-40-8310)

## **9 VAC 5 Chapter 40, Part II, Emission Standards for Sewage Sludge Incineration Units (Rule 4-55) - (Unit ID Nos. MHI and FBI)**

### **Reports and Notifications**

#### **40. Increments of Progress Report –**

- a. Submit notifications of final achievement of increments of progress to the Regional Air Compliance Manager of the DEQ's NRO by the date three years after the effective date of the state plan approval but no later than March 21, 2016.
- b. The notification of achievement of increments of progress must include:
  - 1. Notification that the increment of progress has been achieved.
  - 2. Any items required to be submitted with each increment of progress.
  - 3. Signature of the owner or operator of the SSI.
- c. Notifications for achieving increments of progress must be postmarked no later than 10 business days after the compliance date for the increment.
- d. The permittee shall meet the applicable notification requirements in 40 CFR 60.5085 through 40 CFR 60.5115.

(9 VAC 5-80-110 and 9 VAC 5-40-8280)

#### **41. Compliance Reports –**

- a. The initial compliance report must be submitted within 60 days after the initial performance test to the Regional Air Compliance Manager of the DEQ's NRO.

The initial compliance report shall contain all information (as applicable) listed in 40 CFR 60.5235(b):

1. Company name, physical address, and mailing address.
  2. Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.
  3. Date of report.
  4. The complete test report for the initial performance test results obtained by using the test methods specified in Table 2 or 3 of 40 CFR Part 60 Subpart MMMM.
  5. If an initial performance evaluation of a continuous monitoring system was conducted, the results of that initial performance evaluation.
  6. The values for the site-specific operating limits established pursuant to §§60.5170 and 60.5175 and the calculations and methods, as applicable, used to establish each operating limit.
  7. If you are using a fabric filter to comply with the emission limits, documentation that a bag leak detection system has been installed and is being operated, calibrated, and maintained as required by §60.5170(b).
  8. The results of the initial air pollution control device inspection required in §60.5195, including a description of repairs.
  9. The site-specific monitoring plan required under §60.5200, at least 60 days before your initial performance evaluation of your continuous monitoring system.
  10. The site-specific monitoring plan for your ash handling system required under §60.5200, at least 60 days before your initial performance test to demonstrate compliance with your fugitive ash emission limit.
- b. The annual compliance report shall contain all information as listed in 40 CFR 60.5235(c)(1) through (c)(16). The initial annual compliance report must be submitted no later than 12 months following the initial compliance report listed in Condition 41. (a). Subsequent annual compliance reports must be submitted no more than 12 months following the previous annual compliance report. The annual compliance report shall be submitted to the Regional Air Compliance Manager of the DEQ's NRO. Reports can be submitted electronically or on paper copy if postmarked on or before the due date.

(9 VAC 5-80-110 and 9 VAC 5-40-8320)

#### **42. Deviation Report –**

- a. A deviation report must be submitted to the Regional Air Compliance Manager of the DEQ's NRO if a deviation has occurred, according to the specifications in 40 CFR 60.5235(d). The deviation report must be submitted by August 1 of that

year for data collected during the first half of the calendar year (January 1 to June 30), and by February 1 of the following year for data collected during the second half of the calendar year (July 1 to December 31). Reports can be submitted electronically or on paper copy if postmarked on or before the due date.

- b. A qualified operator deviation report must be submitted to the Regional Air Compliance Manager of the DEQ's NRO if all qualified operators are not accessible to the SSI unit for 2 weeks or more. This report must be submitted within 10 days of the deviation and be followed by a status report every 4 weeks.

(9 VAC 5-80-110 and 9 VAC 5-40-8320)

#### **43. Force Majeure Report –**

A report notifying of a force majeure scenario must be submitted to the Regional Air Compliance Manager of the DEQ's NRO as soon as possible following the date of a pending or past occurrence of a force majeure is known. A force majeure is an event beyond the control of the facility, such as acts of nature, acts of war or terrorism, or equipment failure that prevents conducting a performance test within the regulatory timeframe specified by the emission guidelines.

(9 VAC 5-80-110 and 9 VAC 5-40-8320)

#### **44. Notifications – Performance Test**

- a. A notification of intent to conduct a performance test is due at least 30 days prior to the performance test and is to be sent to the Regional Air Compliance Manager of the DEQ's NRO.
- b. A notification of a rescheduled performance test is due at least 7 days prior to the date of the rescheduled test and is to be sent to the Regional Air Compliance Manager of the DEQ's NRO.

(9 VAC 5-80-110 and 9 VAC 5-40-8320)

#### **45. Notification – Continuous Monitoring System**

Notification to start or stop use of a continuous monitoring system used to demonstrate compliance with an emission limit must be provided to the Regional Air Compliance Manager of the DEQ's NRO, 1 month before starting or stopping use of the of the continuous monitoring system.

(9 VAC 5-80-110 and 9 VAC 5-40-8320)

**46. Electronic Submittal – Performance Testing**

Within 60 days after the date of completing each performance test as defined in §63.2, conducted to demonstrate compliance with this subpart, relative accuracy test audit data and performance test data, except opacity data must be submitted electronically to EPA's Central Data Exchange by using the Electronic Reporting Tool at: [http://www.epa.gov/ttnchie1/ert/ert\\_tool.html](http://www.epa.gov/ttnchie1/ert/ert_tool.html) or other compatible electronic spreadsheet. Only data collected using test methods compatible with ERT are subject to this requirement to be submitted electronically into EPA's WebFIRE database. A paper copy of the performance test results shall be submitted within the same time frame to the Regional Air Compliance Manager of the DEQ's NRO.  
(9 VAC 5-80-110 and 9 VAC 5-40-8320)

**47. Annual or Semi-Annual reporting dates –**

Annual or semi-annual reporting dates may be changed with the Regional Air Compliance Manager of the DEQ's NRO agreement. Procedures to seek approval for changes to reporting dates are found in 40 CFR 60.19(d).  
(9 VAC 5-80-110 and 9 VAC 5-40-8320)

**9 VAC 5 Chapter 40, Part II, Emission Standards for Sewage Sludge Incineration Units (Rule 4-55) - (Unit ID Nos. MHI and FBI)**

**Recordkeeping**

**48. On Site Records** – The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit for the sludge incinerators (Ref. Nos. MHI and FBI) and to meet the requirements of 40 CFR 60.5230. The content and format of such records shall be arranged with the Regional Air Compliance Manager of the DEQ's NRO.

These records shall include, but are not limited to:

- a. Documentation of operator training and operator training procedures as specified under 40 CFR 60.5230(c).
- b. Copies of final control plans and any additional notifications associated with the Permittee's Increments of Progress.
- c. Performance test reports, initial, annual and any subsequent performance tests conducted to determine compliance with the emission limits and standards and/or to establish operating limits, as applicable.

- d. Records of the results of initial and annual air pollution control device inspections.
- e. Continuous monitoring data as specified in 40 CFR 60.5230(f).
- f. Other records for any continuous monitoring system as specified in 40 CFR 60.5230(g).
- g. Monitoring plans and performance evaluations for continuous monitoring systems as specified in 40 CFR 60.5230(k).
- h. Equipment specifications and operation and maintenance requirements. Equipment specifications and related operation and maintenance requirements received from vendors for the incinerator, emission controls and monitoring equipment.
- i. Records of malfunctions and actions taken to minimize emissions.
- j. Annual compliance reports.
- k. Deviation reports.
- l. Force majeure and other reports.
- m. Records of inspections, calibrations and validation checks of monitoring devices.
- n. Other records as may be required by the Air Compliance Manager of the DEQ's NRO.

These records shall be available for inspection by the DEQ and shall be current for the most recent five years, unless otherwise noted.

(9 VAC 5-80-110 and 9 VAC 5-40-8320)

## Testing

- 49. **Facility Wide Conditions - Testing** – The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations. (9 VAC 5-50-30 and 9 VAC 5-80-110)
- 50. **Facility Wide Conditions - Testing** – If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the appropriate method(s)

in accordance with procedures approved by the DEQ.  
(9 VAC 5-80-110)

## Permit Shield & Inapplicable Requirements

51. Compliance with the provisions of this permit shall be deemed compliance with all applicable requirements in effect as of the permit issuance date as identified in this permit. This permit shield covers only those applicable requirements covered by terms and conditions in this permit and the following requirements that have been specifically identified as being not applicable to this permitted facility:

Citation	Title of Citation	Description of Inapplicability
40 CFR 64	Compliance Assurance Monitoring (CAM)	Facility not a major source, but a "Title V by Rule" facility.
40 CFR 63, Subpart VVV	Subpart VVV, National Emission Standards for Hazardous Air Pollutants for Publicly Owned Treatment Works	Facility is not a major source of HAPS
40 CFR 61, Subpart C	Subpart C, National Emission Standards for Beryllium	Facility is not an incinerator which processes beryllium ore, beryllium, beryllium oxide, beryllium alloys or beryllium-containing waste.

Nothing in this permit shield shall alter the provisions of §303 of the federal Clean Air Act, including the authority of the administrator under that section, the liability of the owner for any violation of applicable requirements prior to or at the time of permit issuance, or the ability to obtain information by the administrator pursuant to §114 of the federal Clean Air Act, (ii) the Board pursuant to §10.1-1314 or §10.1-1315 of the Virginia Air Pollution Control Law or (iii) the Department pursuant to §10.1-1307.3 of the Virginia Air Pollution Control Law.  
(9 VAC 5-80-140)

## General Conditions

52. **General Conditions - Federal Enforceability** – All terms and conditions in this permit are enforceable by the administrator and citizens under the federal Clean Air Act, except those that have been designated as only state-enforceable.  
(9 VAC 5-80-110 N)



- 53. General Conditions - Permit Expiration** – This permit has a fixed term of five years. The expiration date shall be the date five years from the date of issuance. Unless the owner submits a timely and complete application for renewal to the Department consistent with the requirements of 9 VAC 5-80-80, the right of the facility to operate shall be terminated upon permit expiration.  
(9 VAC 5-80-80 B, C, and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)
- 54. General Conditions - Permit Expiration** – The owner shall submit an application for renewal at least six months but no earlier than eighteen months prior to the date of permit expiration.  
(9 VAC 5-80-80 B, C, and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)
- 55. General Conditions - Permit Expiration** – If an applicant submits a timely and complete application for an initial permit or renewal under this section, the failure of the source to have a permit or the operation of the source without a permit shall not be a violation of Article 1, Part II of 9 VAC 5 Chapter 80, until the DEQ NRO takes final action on the application under 9 VAC 5-80-150.  
(9 VAC 5-80-80 B, C, and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)
- 56. General Conditions - Permit Expiration** – No source shall operate after the time that it is required to submit a timely and complete application under subsections C and D of 9 VAC 5-80-80 for a renewal permit, except in compliance with a permit issued under Article 1, Part II of 9 VAC 5 Chapter 80.  
(9 VAC 5-80-80 B, C, and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)
- 57. General Conditions - Permit Expiration** – If an applicant submits a timely and complete application under section 9 VAC 5-80-80 for a permit renewal but the DEQ NRO fails to issue or deny the renewal permit before the end of the term of the previous permit, (i) the previous permit shall not expire until the renewal permit has been issued or denied and (ii) all the terms and conditions of the previous permit, including any permit shield granted pursuant to 9 VAC 5-80-140, shall remain in effect from the date the application is determined to be complete until the renewal permit is issued or denied.  
(9 VAC 5-80-80 B, C, and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)
- 58. General Conditions - Permit Expiration** – The protection under subsections F 1 and F 5 (ii) of section 9 VAC 5-80-80 F shall cease to apply if, subsequent to the completeness determination made pursuant section 9 VAC 5-80-80 D, the applicant fails to submit by the deadline specified in writing by the DEQ NRO any additional information identified as being needed to process the application.  
(9 VAC 5-80-80 B, C and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)

**59. General Conditions - Recordkeeping and Reporting** – All records of monitoring information maintained to demonstrate compliance with the terms and conditions of this permit shall contain, where applicable, the following:

- a. The date, place as defined in the permit, and time of sampling or measurements.
- b. The date(s) analyses were performed.
- c. The company or entity that performed the analyses.
- d. The analytical techniques or methods used.
- e. The results of such analyses.
- f. The operating conditions existing at the time of sampling or measurement.

(9 VAC 5-80-110 F)

**60. General Conditions - Recordkeeping and Reporting** – Records of all monitoring data and support information shall be retained for at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.

(9 VAC 5-80-110 F)

**61. General Conditions - Recordkeeping and Reporting** – The permittee shall submit the results of monitoring contained in any applicable requirement to DEQ no later than **March 1** and **September 1** of each calendar year. This report must be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

- a. The time period included in the report. The time periods to be addressed are January 1 to June 30 and July 1 to December 31.
- b. All deviations from permit requirements. For purposes of this permit, deviations include, but are not limited to:
  - i. Exceedance of emissions limitations or operational restrictions;
  - ii. Excursions from control device operating parameter requirements, as documented by continuous emission monitoring, periodic monitoring, or compliance assurance monitoring which indicates an exceedance of emission limitations or operational restrictions; or,
  - iii. Failure to meet monitoring, recordkeeping, or reporting requirements contained in this permit.

- c. If there were no deviations from permit conditions during the time period, the permittee shall include a statement in the report that “no deviations from permit requirements occurred during this semi-annual reporting period.”

(9 VAC 5-80-110 F)

**62. General Conditions - Annual Compliance Certification** – Exclusive of any reporting required to assure compliance with the terms and conditions of this permit or as part of a schedule of compliance contained in this permit, the permittee shall submit to EPA and DEQ no later than **March 1** each calendar year a certification of compliance with all terms and conditions of this permit including emission limitation standards or work practices. The compliance certification shall comply with such additional requirements that may be specified pursuant to §114(a)(3) and §504(b) of the federal Clean Air Act. This certification shall be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

- a. The time period included in the certification. The time period to be addressed is January 1 to December 31.
- b. The identification of each term or condition of the permit that is the basis of the certification.
- c. The compliance status.
- d. Whether compliance was continuous or intermittent, and if not continuous, documentation of each incident of non-compliance.
- e. Consistent with subsection 9 VAC 5-80-110 E, the method or methods used for determining the compliance status of the source at the time of certification and over the reporting period.
- f. Such other facts as the permit may require to determine the compliance status of the source.
- g. One copy of the annual compliance certification shall be sent to EPA at the following address: R3\_APD\_Permits@epa.gov.

(9 VAC 5-80-110 K.5)

**63. General Conditions - Permit Deviation Reporting** – The permittee shall notify the Regional Air Compliance Manager of the DEQ’s NRO, within four daytime business hours, after discovery of any deviations from permit requirements which may cause excess emissions for more than one hour, including those attributable to upset conditions as may be defined in this permit. In addition, within 14 days of the discovery, the permittee shall provide a written statement explaining the problem, any corrective actions or preventative measures taken, and the estimated duration of the permit deviation. Owners subject to the requirements of 9 VAC 5-40-50 C and 9

VAC 5-50-50 C are not required to provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9 VAC 5-40-40 and 9 VAC 5-50-40. The occurrence should also be reported in the next semi-annual compliance monitoring report.

(9 VAC 5-80-110 F.2 and 9 VAC 5-80-250)

- 64. General Conditions – Equipment Failure/Malfunction Reporting –** In the event that any affected facility or related air pollution control equipment fails or malfunctions in such a manner that may cause excess emissions for more than one hour, the owner shall, as soon as practicable but no later than four daytime business hours after the malfunction is discovered, notify the Regional Air Compliance Manager of the DEQ's NRO by facsimile transmission, telephone or telegraph of such failure or malfunction and shall within 14 days of discovery provide a written statement giving all pertinent facts, including the estimated duration of the breakdown. Owners subject to the requirements of 9 VAC 5-40-50 C and 9 VAC 5-50-50 C are not required to provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9 VAC 5-40-40 and 9 VAC 5-50-40. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the owner shall notify the Regional Air Compliance Manager of the DEQ's NRO.

(9 VAC 5-20-180 C, 9 VAC 5-40-50, and 9 VAC 5-50-50)

- 65. General Conditions – CMS Excess Emission Reporting –** Each owner required to install a continuous monitoring system subject to 9 VAC 5-40-41 or 9 VAC 5-50-410 shall submit a written report of excess emissions (as defined in the applicable subpart in 9 VAC 5-50-410) and either a monitoring systems performance report or a summary report form, or both, to the Regional Air Compliance Manager of the DEQ's NRO quarterly. All quarterly reports shall be postmarked by the 30th day following the end of each calendar quarter. All reports shall include the following information:

- a. The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h) or 9 VAC 5-40-41 B 6, any conversion factors used, and the date and time of commencement and completion of each period of excess emissions;
- b. Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the source. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted;
- c. The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments; and

- d. When no excess emissions have occurred or the continuous monitoring systems have not been inoperative, repaired or adjusted, such information shall be stated in the report.

All malfunctions of emission units not subject to 9 VAC 5-40-50 C and 9 VAC 5-50-50 C require written reports within 14 days of the discovery of the malfunction or excess emissions.

(9 VAC 5-20-180 C and 9 VAC 5-50-50)

66. **General Conditions - Severability** – The terms of this permit are severable. If any condition, requirement or portion of the permit is held invalid or inapplicable under any circumstance, such invalidity or inapplicability shall not affect or impair the remaining conditions, requirements, or portions of the permit.  
(9 VAC 5-80-110 G.1)
67. **General Conditions - Duty to Comply** – The permittee shall comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the federal Clean Air Act or the Virginia Air Pollution Control Law or both and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or, for denial of a permit renewal application.  
(9 VAC 5-80-110 G.2)
68. **General Conditions - Need to Halt or Reduce Activity not a Defense** – It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.  
(9 VAC 5-80-110 G.3)
69. **General Conditions - Permit Modification** – A physical change in, or change in the method of operation of, this stationary source may be subject to permitting under State Regulations 9 VAC 5-80-50, 9 VAC 5-80-1100, 9 VAC 5-80-1790, or 9 VAC 5-80-2000 and may require a permit modification and/or revisions except as may be authorized in any approved alternative operating scenarios.  
(9 VAC 5-80-190 and 9 VAC 5-80-260)
70. **General Conditions - Property Rights** – The permit does not convey any property rights of any sort, or any exclusive privilege.  
(9 VAC 5-80-110 G.5)
71. **General Conditions - Duty to Submit Information** – The permittee shall furnish to the DEQ NRO, within a reasonable time, any information that the DEQ NRO may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the DEQ NRO copies of records

required to be kept by the permit and, for information claimed to be confidential, the permittee shall furnish such records to the DEQ NRO along with a claim of confidentiality.

(9 VAC 5-80-110 G.6)

72. **General Conditions - Duty to Submit Information** – Any document (including reports) required in a permit condition to be submitted to the DEQ NRO shall contain a certification by a responsible official that meets the requirements of 9 VAC 5-80-80 G.  
(9 VAC 5-80-110 K.1)

73. **General Conditions - Duty to Pay Permit Fees** – The owner of any source for which a permit under 9 VAC 5-80-50 through 9 VAC 5-80-300 was issued shall pay permit fees consistent with the requirements of 9 VAC 5-80-310 through 9 VAC 5-80-350. The actual emissions covered by the permit program fees for the preceding year shall be calculated by the owner and submitted to the Department by **April 15** of each year. The calculations and final amount of emissions are subject to verification and final determination by the Department. The amount of the annual permit maintenance fee shall be the largest applicable base permit maintenance fee amount from Table 8-11 (A) in 9 VAC 5-80-2340, adjusted annually by the change in the Consumer Price Index.  
(9 VAC 5-80-110 H, 9 VAC 5-80-340 C and 9 VAC 5-80-2340 B)

74. **General Conditions - Fugitive Dust Emission Standards** – During the operation of a stationary source or any other building, structure, facility, or installation, no owner or other person shall cause or permit any materials or property to be handled, transported, stored, used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions may include, but are not limited to, the following:

- a. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or clearing of land;
- b. Application of asphalt, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which may create airborne dust; the paving of roadways and the maintaining of them in a clean condition;
- c. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty material. Adequate containment methods shall be employed during sandblasting or other similar operations;
- d. Open equipment for conveying or transporting material likely to create objectionable air pollution when airborne shall be covered or treated in an equally effective manner at all times when in motion; and,

- e. The prompt removal of spilled or tracked dirt or other materials from paved streets and of dried sediments resulting from soil erosion.

(9 VAC 5-40-90 and 9 VAC 5-50-90)

- 75. General Conditions - Startup, Shutdown, and Malfunction** – At all times, including periods of startup, shutdown, soot blowing, and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the DEQ NRO, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

(9 VAC 5-50-20 E and 9 VAC 5-40-20 E)

- 76. General Conditions - Alternative Operating Scenarios** – Contemporaneously with making a change between reasonably anticipated operating scenarios identified in this permit, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions under each such operating scenario. The terms and conditions of each such alternative scenario shall meet all applicable requirements including the requirements of 9 VAC 5 Chapter 80, Article 1.

(9 VAC 5-80-110 J)

- 77. General Conditions - Inspection and Entry Requirements** – The permittee shall allow DEQ, upon presentation of credentials and other documents as may be required by law, to perform the following:

- a. Enter upon the premises where the source is located or emissions-related activity is conducted, or where records must be kept under the terms and conditions of the permit.
- b. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of the permit.
- c. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit.
- d. Sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

(9 VAC 5-80-110 K.2)

**78. General Conditions - Reopening For Cause** – The permit shall be reopened by the DEQ NRO if additional federal requirements become applicable to a major source with a remaining permit term of three years or more. Such reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 9 VAC 5-80-80 F.

- a. The permit shall be reopened if the DEQ NRO or the administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.
- b. The permit shall be reopened if the administrator or the DEQ NRO determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
- c. The permit shall not be reopened by the DEQ NRO if additional applicable state requirements become applicable to a major source prior to the expiration date established under 9 VAC 5-80-110 D.

(9 VAC 5-80-110 L)

**79. General Conditions - Permit Availability** – Within five days after receipt of the issued permit, the permittee shall maintain the permit on the premises for which the permit has been issued and shall make the permit immediately available to DEQ upon request.

(9 VAC 5-80-150 E)

**80. General Conditions - Transfer of Permits** – No person shall transfer a permit from one location to another, unless authorized under 9 VAC 5-80-130, or from one piece of equipment to another.

(9 VAC 5-80-160)

**81. General Conditions - Transfer of Permits** – In the case of a transfer of ownership of a stationary source, the new owner shall comply with any current permit issued to the previous owner. The new owner shall notify the DEQ NRO of the change in ownership within 30 days of the transfer and shall comply with the requirements of 9 VAC 5-80-200.

(9 VAC 5-80-160)

**82. General Conditions - Transfer of Permits** – In the case of a name change of a stationary source, the owner shall comply with any current permit issued under the previous source name. The owner shall notify the DEQ NRO of the change in source



name within 30 days of the name change and shall comply with the requirements of 9 VAC 5-80-200.

(9 VAC 5-80-160)

- 83. General Conditions - Malfunction as an Affirmative Defense** – A malfunction constitutes an affirmative defense to an action brought for noncompliance with technology-based emission limitations if the requirements stated in Condition 83 are met.

(9 VAC 5-80-250)

- 84. General Conditions - Malfunction as an Affirmative Defense** – The affirmative defense of malfunction shall be demonstrated by the permittee through properly signed, contemporaneous operating logs, or other relevant evidence that show the following:

- a. A malfunction occurred and the permittee can identify the cause or causes of the malfunction.
- b. The permitted facility was at the time being properly operated.
- c. During the period of the malfunction the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit.
- d. The permittee notified the DEQ NRO of the malfunction within two working days following the time when the emission limitations were exceeded due to the malfunction. This notification shall include a description of the malfunction, and steps taken to mitigate emissions, and corrective actions taken. The notification may be delivered either orally or in writing. The notification may be delivered electronic mail, facsimile transmission, telephone, or any other method that allows the permittee to comply with the deadline. This notification fulfills the requirements of 9 VAC 5-80-110 F 2 b to report promptly deviations from permit requirements. This notification does not release the permittee from the malfunction reporting requirements under 9 VAC 5-20-180 C.

(9 VAC 5-80-250)

- 85. General Conditions - Malfunction as an Affirmative Defense** – In any Enforcement proceeding, the permittee seeking to establish the occurrence of a malfunction shall have the burden of proof.

(9 VAC 5-80-250)

- 86. General Conditions - Malfunction as an Affirmative Defense** – The provisions of Conditions 83 through 85 are in addition to any malfunction, emergency or upset

provision contained in any applicable requirement.  
(9 VAC 5-80-250)

- 87. General Conditions - Permit Revocation or Termination for Cause** – A permit may be revoked or terminated prior to its expiration date if the owner knowingly makes material misstatements in the permit application or any amendments thereto or if the permittee violates, fails, neglects or refuses to comply with the terms or conditions of the permit, any applicable requirements, or the applicable provisions of 9 VAC 5 Chapter 80 Article 1. The DEQ may suspend, under such conditions and for such period of time as the DEQ may prescribe any permit for any of the grounds for revocation or termination or for any other violations of these regulations.  
(9 VAC 5-80-190 C and 9 VAC 5-80-260)
- 88. General Conditions - Duty to Supplement or Correct Application** – Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrections. An applicant shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete application was filed but prior to release of a draft permit.  
(9 VAC 5-80-80 E)
- 89. General Conditions - Stratospheric Ozone Protection** – If the permittee handles or emits one or more Class I or II substances subject to a standard promulgated under or established by Title VI (Stratospheric Ozone Protection) of the federal Clean Air Act, the permittee shall comply with all applicable sections of 40 CFR Part 82, Subparts A to F.  
(40 CFR Part 82, Subparts A-F)
- 90. General Conditions - Asbestos Requirements** – The permittee shall comply with the requirements of National Emissions Statements for Hazardous Air Pollutants (40 CFR 61) Subpart M, National Emission Standards for Asbestos as it applies to the following: Standards for Demolition and Renovation (40 CFR 61.145), Standards for Insulating Materials (40 CFR 61.150).  
(9 VAC 5-60-70 and 9 VAC 5-80-110 A.1)
- 91. General Conditions - Accidental Release Prevention** – If the permittee has more, or will have more than a threshold quantity of a regulated substance in a process, as determined by 40 CFR 68.115, the permittee shall comply with the requirements of 40 CFR Part 68.  
(40 CFR Part 68)
- 92. General Conditions - Changes to Permits for Emissions Trading** – No permit revision shall be required under any federally approved economic incentives,

marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.

(9 VAC 5-80-110 I)

**93. General Conditions - Emissions Trading** – Where the trading of emissions increases and decreases within the permitted facility is to occur within the context of this permit and to the extent that the regulations provide for trading such increases and decreases without a case-by-case approval of each emissions trade:

- a. All terms and conditions required under 9 VAC 5-80-110, except subsection N, shall be included to determine compliance.
- b. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions that allow such increases and decreases in emissions.
- c. The owner shall meet all applicable requirements including the requirements of 9 VAC 5-80-50 through 9 VAC 5-80-300.

(9 VAC 5-80-110 I)

## **STATE ONLY APPLICABLE REQUIREMENTS**

**94. State-Only Enforceable Requirements** – The following terms and conditions are not required under the federal Clean Air Act or under any of its applicable federal requirements, and are not subject to the requirements of 9 VAC 5-80-290 concerning review of proposed permits by EPA and draft permits by affected States.

(a) 9 VAC 5 Chapter 50, Part II, Article 2: Standards of Performance for Odorous Emissions

(b) 9 VAC 5 Chapter 60, Part II, Article 5: Emission Standards for Toxic Pollutants from New and Modified Sources

(9 VAC 5-80-110 N, 9 VAC 5-80-300 and Condition 54 of the March 1, 2012 mNSR Permit (as amended October 2, 2014))

## SOURCE TESTING REPORT FORMAT

### Report Cover

1. Plant name and location
2. Units tested at source (indicate Ref. No. used by source in permit or registration)
3. Test Dates.
4. Tester; name, address and report date

### Certification

1. Signed by team leader/certified observer (include certification date)
2. Signed by responsible company official
3. \*Signed by reviewer

### Copy of approved test protocol

### Summary

1. Reason for testing
2. Test dates
3. Identification of unit tested & the maximum rated capacity
4. \*For each emission unit, a table showing:
  - a. Operating rate
  - b. Test Methods
  - c. Pollutants tested
  - d. Test results for each run and the run average
  - e. Pollutant standard or limit
5. Summarized process and control equipment data for each run and the average, as required by the test protocol
6. A statement that test was conducted in accordance with the test protocol or identification & discussion of deviations, including the likely impact on results
7. Any other important information

### Source Operation

1. Description of process and control devices
2. Process and control equipment flow diagram
3. Sampling port location and dimensioned cross section Attached protocol includes: sketch of stack (elevation view) showing sampling port locations, upstream and downstream flow disturbances and their distances from ports; and a sketch of stack (plan view) showing sampling ports, ducts entering the stack and stack diameter or dimensions

### Test Results

1. Detailed test results for each run
2. \*Sample calculations
3. \*Description of collected samples, to include audits when applicable

### Appendix

1. \*Raw production data
2. \*Raw field data
3. \*Laboratory reports
4. \*Chain of custody records for lab samples
5. \*Calibration procedures and results
6. Project participants and titles
7. Observers' names (industry and agency)
8. Related correspondence
9. Standard procedures

\* Not applicable to visible emission evaluations